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NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances  
NEWS 4 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats  
NEWS 5 JAN 28 MARPAT searching enhanced  
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication  
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment  
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements  
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NEWS 11 FEB 25 IFIREF reloaded with enhancements  
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NEWS 13 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification  
NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats  
NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental spectra  
NEWS 16 MAR 31 CA/Caplus and CASREACT patent number format for U.S. applications updated  
NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI  
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements  
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued  
NEWS 20 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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Enter NEWS followed by the item number or name to see news on that specific topic.

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COST IN U.S. DOLLARS  
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0.21 0.21  
FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 20 APR 2008 HIGHEST RN 1015905-22-2  
DICTIONARY FILE UPDATES: 20 APR 2008 HIGHEST RN 1015905-22-2

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STRUCTURES\10519287.str
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chain nodes :
1 2 3 4
chain bonds :
1-3 1-2 3-4
exact bonds :
1-3 1-2 3-4

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Match level :  
1:CLASS 2:CLASS 3:CLASS 4:CLASS

## STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1                      STR
H---CF3---SO2---Cl
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Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 19:51:39 FILE 'REGISTRY'  
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100.0% PROCESSED 25 ITERATIONS

SEARCH TIME: 00.00.01

1 ANSWERS

L2 1 SEA EXA FUL L1

=> s ll fam full

FULL SEARCH INITIATED 19:51:54 FILE 'REGISTRY'  
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100.0% PROCESSED 70 ITERATIONS

SEARCH TIME: 00.00.01

1 ANSWERS

L3 1 SEA FAM FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
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FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 19:52:02 ON 21 APR 2008

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FILE COVERS 1907 - 21 Apr 2008 VOL 148 ISS 17

FILE LAST UPDATED: 20 Apr 2008 (20080420/ED)

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<http://www.cas.org/infopolicy.html>

=> s l2

L4 18 L2

=> s l3

L5 18 L3

=> l4 and l5

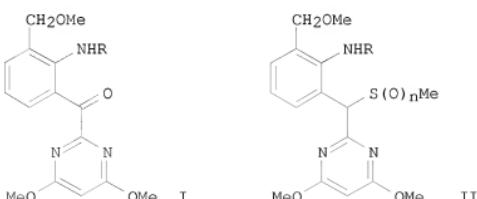
L4 IS NOT A RECOGNIZED COMMAND

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For a list of commands available to you in the current file, enter  
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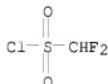
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L6 18 L4 AND L5  
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L6 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:410208 CAPLUS  
DOCUMENT NUMBER: 144:450722  
TITLE: Oxidation process for the preparation of phenyl  
2-pyrimidinyl ketones and their corresponding sulfide  
of sulfoxides  
INVENTOR(S): Araki, Koichi; Sato, Yoshitaka; Ford, Mark James  
PATENT ASSIGNEE(S): Bayer Cropscience AG, Germany  
SOURCE: PCT Int. Appl., 19 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006045612	A1	20060504	WO 2005-EP11531	20051028
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KB, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2006124347	A	20060518	JP 2004-317222	20041029
EP 1807401	A1	20070718	EP 2005-806519	20051028
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101048387	A	20071003	CN 2005-80037325	20051028
MX 200705171	A	20070622	MX 2007-5171	20070427
KR 2007070200	A	20070703	KR 2007-709735	20070427
US 20080004444	A1	20080103	US 2007-666496	20070427
PRIORITY APPLN. INFO.:			JP 2004-317222	A 20041029
			WO 2005-EP11531	W 20051028
OTHER SOURCE(S): GI			CASREACT 144:450722; MARPAT 144:450722	



AB 2-Pyrimidinyl ketones [I; R = H, F<sub>2</sub>HCSO<sub>2</sub>; e.g., 2-[(4,6-dimethoxypyrimidin-2-yl)carbonyl]-6-methoxymethylaniline] or their salts are prepared in high yield and selectivity by the oxidation of the corresponding sulfides or sulfoxides [II; n = 0, 1; e.g., 2-[(4,6-dimethoxypyrimidin-2-yl)methylthiomethyl]-6-methoxymethylaniline] or their salts in the presence of hydrogen peroxide and acetic acid.  
 IT 1512-30-7, Difluoromethanesulfonyl chloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminoaryl pyrimidyl ketones and [(aminoaryl)pyrimidyl] Me sulfoxides via oxidation of [(aminoaryl)pyrimidyl] Me sulfides)  
 RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

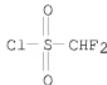


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:365461 CAPLUS  
 DOCUMENT NUMBER: 142:411075  
 TITLE: Environmentally friendly preparation of benzyl difluoromethyl sulfides  
 INVENTOR(S): Fujimoto, Shuichi; Hamada, Yusuke  
 PATENT ASSIGNEE(S): Ibara Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005112810	A	20050428	JP 2003-350882	20031009
PRIORITY APPLN. INFO.:			JP 2003-350882	20031009
OTHER SOURCE(S):	MARPAT 142:411075			

AB The sulfides RnC<sub>6</sub>H<sub>5</sub>-nCH<sub>2</sub>CH<sub>2</sub>Cl (R = H, alkyl, halo, etc.; n = 1-5), useful as intermediates for difluoromethylsulfonylanilides as herbicides, are prepared by treatment of (RnC<sub>6</sub>H<sub>5</sub>-nCH<sub>2</sub>S)mX<sub>1</sub> (R = same as above; X<sub>1</sub> = alkali metal, alkaline earth metal; m = 1 when X<sub>1</sub> = alkali metal; m = 2 when X<sub>1</sub> = alkaline earth metal) with CHF<sub>2</sub>X<sub>2</sub> (X<sub>2</sub> = halo) in water-organic solvent two-phase systems. Thus, benzylthioronium hydrochloride was treated with KOH in the presence of Bu<sub>4</sub>N<sup>+</sup>Br<sup>-</sup> in C<sub>6</sub>H<sub>5</sub>Cl/H<sub>2</sub>O and treated with CHF<sub>2</sub>Cl to give 89.7% benzyl difluoromethyl sulfide.  
 IT 1512-30-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of benzyl difluoromethyl sulfides as intermediates for difluoromethylsulfonylanilide herbicides by sulfuration of halodifluoromethanes with benzylmercaptan metal salts in water-organic solvent two-phase systems)  
 RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:20652 CAPLUS  
 DOCUMENT NUMBER: 140:93680  
 TITLE: Method for synthesis of hydrogenofluoromethylenesulfonyl radical derivatives  
 INVENTOR(S): Saint-Jalme, Laurent  
 PATENT ASSIGNEE(S): Rhodia Chimie, Fr.  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002951	A2	20040108	WO 2003-FR1940	20030624
WO 2004002951	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KE, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2841551	A1	20040102	FR 2002-8090	20020628
FR 2841551	B1	20060113		
CA 2491207	A1	20040108	CA 2003-2491207	20030624
AU 2003260623	A1	20040119	AU 2003-260623	20030624
EP 1517888	A2	20050330	EP 2003-761633	20030624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1671657	A	20050921	CN 2003-817932	20030624
JP 2005531626	T	20051020	JP 2004-516858	20030624
US 20060178536	A1	20060810	US 2005-519287	20051125
PRIORITY APPLN. INFO.:			FR 2002-8090 A 20020628	
			WO 2003-FR1940 W 20030624	

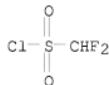
OTHER SOURCE(S): CASREACT 140:93680

AB A process for the synthesis of hydrogenofluoromethylenesulfonyl radical derivs. is disclosed. The process comprises: i. condensing a thiolate (that is monoalkyl sulfide salt) with a compound having a sp<sup>3</sup> hybridized carbon bearing a hydrogen, a fluorine, a heavy halogen selected among chlorine, bromine and iodine and an electron-attracting group (*op* is not less than 0.2) and ii. oxidation of the resulting sulfide. For instance, benzylmercaptan is alkylated with R 22 (Na, 1,2,4-trichlorobenzene, several conditions evaluated) and the resulting sulfide oxidized (Cl<sub>2</sub>) to give difluoromethanesulfonyl chloride. The invention is applicable to the synthesis of various compds. having a sulfinyl or sulfonyl group.

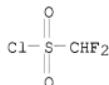
IT 1512-30-7P, Difluoromethanesulfonyl chloride

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

(Preparation)  
(method for synthesis of hydrogenofluoromethylenesulfonyl radical derivs.)  
RN 1512-30-7 CAPLUS  
CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:137607 CAPLUS  
DOCUMENT NUMBER: 134:252430  
TITLE: Predicting the reactivity of fluorinated compounds with copper using semi-empirical calculations  
AUTHOR(S): Heaton, C. A.; Miller, A. K.; Powell, R. L.  
CORPORATE SOURCE: School of Pharmacy and Chemistry, Liverpool John Moores University, Liverpool, L3 3AF, UK  
SOURCE: Journal of Fluorine Chemistry (2001), 107(1), 1-3  
CODEN: JFLCAR; ISSN: 0022-1139  
PUBLISHER: Elsevier Science S.A.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Both electron affinities and LUMO energies have been useful predictors of the reactivity of a series of fluorinated halides with copper. They were calculated using the semi-empirical PM3 method.  
IT 1512-30-7, Difluoromethanesulfonyl chloride  
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
(predicting reactivity of fluorinated compds. with copper using semi-empirical calcns.)  
RN 1512-30-7 CAPLUS  
CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2000:644993 CAPLUS  
DOCUMENT NUMBER: 133:309596  
TITLE: Gas phase structures and conformations of trifluoromethanesulfonyl fluoride, CF<sub>3</sub>SO<sub>2</sub>F, difluoromethanesulfonyl fluoride, CHF<sub>2</sub>SO<sub>2</sub>F, and difluoromethanesulfonyl chloride, CHF<sub>2</sub>SO<sub>2</sub>Cl  
AUTHOR(S): Haist, R.; Trautner, F.; Mohtasham, J.; Winter, R.; Gard, G. L.; Oberhammer, H.  
CORPORATE SOURCE: Institut fur Physikalische und Theoretische Chemie, Universitat Tubingen, Tubingen, 72076, Germany  
SOURCE: Journal of Molecular Structure (2000), 550-551, 59-65  
CODEN: JMOSB4; ISSN: 0022-2860

PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The gas phase structures of CF<sub>3</sub>SO<sub>2</sub>F, CHF<sub>2</sub>SO<sub>2</sub>F, and CHF<sub>2</sub>SO<sub>2</sub>Cl have been studied by gas electron diffraction (GED) and quantum chemical calcns. (HF/6-31G\* and B3LYP/6-31G\*). The two compds. CHF<sub>2</sub>SO<sub>2</sub>X (X=F or Cl) exist in the gas phase as mixts. of trans and gauche conformers (C-H bond trans or gauche to S-X bond). In the case of CHF<sub>2</sub>SO<sub>2</sub>F the gauche conformer prevails (84(17)%), whereas for the chlorine derivative the trans form is the major component (69(9)%). These compns. are reasonably well reproduced by both computational methods. The S-C bond lengths (1.835(5) Å in CF<sub>3</sub>SO<sub>2</sub>F, 1.822(5) Å in CHF<sub>2</sub>SO<sub>2</sub>F and 1.846(5) Å in CHF<sub>2</sub>SO<sub>2</sub>Cl) are compared to those in other sulfonyl derivs.

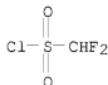
IT 1512-30-7, Difluoromethanesulfonyl chloride

RL: PRP (Properties)

(gas phase structures and conformations of fluoromethanesulfonyl fluorides and chlorides)

RN 1512-30-7 CAPLUS

CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:98529 CAPLUS

DOCUMENT NUMBER: 132:151829

TITLE: Di- or tri-fluoromethanesulfonyl anilide derivatives, process for the preparation of them and herbicides containing them as the active ingredient

INVENTOR(S): Yoshimura, Takumi; Nakatani, Masao; Tamaru, Masatoshi; Danjo, Takeshi; Ono, Yukimasa; Yanagisawa, Katsutada

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan; Kumiai Chemical Industry Co., Ltd.

SOURCE: PCT Int. Appl., 43 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

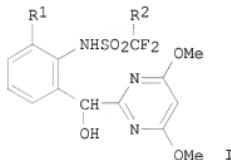
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006553	A1	20000210	WO 1999-JP4043	19990728
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2000044546	A	20000215	JP 1998-214635	19980729
JP 3632947	B2	20050330		
JP 2000063360	A	20000229	JP 1998-235438	19980821

JP 3697075	B2	20050921		
AU 9949289	A1	20000221	AU 1999-49289	19990728
AU 750129	B2	20020711		
EP 1101760	A1	20010523	EP 1999-933128	19990728
EP 1101760	B1	20031015		
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BR 9912494	A	20020409	BR 1999-12494	19990728
EP 1361218	A1	20031112	EP 2003-5151	19990728
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AT 252088	T	20031115	AT 1999-933128	19990728
RU 2225861	C2	20040320	RU 2001-105533	19990728
ES 2209466	T3	20040616	ES 1999-933128	19990728
TW 221471	B	20041001	TW 1999-88112867	19990729
US 6458748	B1	20021001	US 2001-744209	20010122
PRIORITY APPLN. INFO.:				
			JP 1998-214635	A 19980729
			JP 1998-235438	A 19980821
			EP 1999-933128	A3 19990728
			WO 1999-JP4043	W 19990728

OTHER SOURCE(S): MARPAT 132:151829  
GI



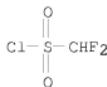
AB Described are N-(di- or tri-fluoromethanesulfonyl)-2-[(4,6-dimethoxypyrimidin-2-yl)hydroxymethyl]aniline compds. (I; wherein R1 is hydrogen, alkyl or alkoxyalkyl; and R2 is hydrogen when R1 is hydrogen or alkyl, while R2 is hydrogen or fluoro when R1 is alkoxyalkyl) useful as herbicides which are effective in controlling a wide variety of lowland weeds including difficultly controllable ones and safe for mammals; process for the preparation of them; herbicides containing them as the active ingredient; and novel compds. to be used in the process as the raw material. Thus, 3.6 g difluoromethanesulfonyl chloride was added dropwise to a solution of 4.0 g 2-[(4,6-dimethoxypyrimidin-2-yl)hydroxymethyl]-6-(methoxymethyl)aniline and 2.0 g pyridine in 30 mL CH<sub>2</sub>Cl<sub>2</sub> and stirred at room temperature for 7 days to give 36% I (R1 = methoxymethyl, R2 = H). The latter compound at 1.6 g/10 are preemergence ≥90% Echinochloa crus-galli, Monochoria vaginalis, and Scirpus juncoides in flooded paddy soil and did not damage rice seedlings.

IT 1512-30-7, Difluoromethanesulfonyl chloride

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of N-(di- or tri-fluoromethanesulfonyl)aniline derivs. as herbicides)

RN 1512-30-7 CAPLUS

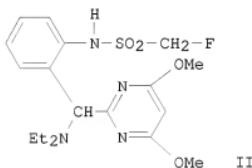
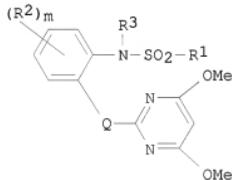
CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



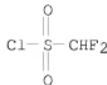
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1999;147774 CAPLUS  
 DOCUMENT NUMBER: 130:223289  
 TITLE: Preparation of sulfonanilide moiety containing pyrimidine derivatives as herbicides  
 INVENTOR(S): Yoshimura, Isao; Miyazaki, Masahiro; Suzuki, Senji;  
 Nakaya, Masao; Tamaru, Masatoshi; Ono, Yoshimasa; Ida,  
 Tomohisa; Yanagisawa, Katsutada; Sadohara, Hideo  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan; Ihara  
 Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11060562	A	19990302	JP 1998-173980	19980605
PRIORITY APPLN. INFO.:			JP 1997-169454	A 19970611
OTHER SOURCE(S):	MARPAT	130:223289		
GI				

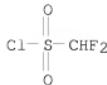


AB The title compds. I [R1 = (un)substituted alkyl, etc.; R2 = H, halo, etc.; R3 = H, alkyl, etc.; Q = CH(NR4R5), etc.; m = 1 -4; R4, R5 = H, alkyl, etc.] are prepared. The title compound II (at 100 g/10 area) gave ≥ 90% control of *Scirpus juncoides*.  
 IT 1512-30-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of sulfonanilide moiety containing pyrimidine derivs. as herbicides)  
 RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1999:130426 CAPLUS  
 DOCUMENT NUMBER: 130:184069  
 TITLE: Preparation of bis(fluoroalkylenesulfonyl) imides and  
 (fluoroalkylsulfonyl) (fluorosulfonyl) imides  
 INVENTOR(S): Howells, Richard D.; Lamanna, William M.; Fanta, Alan  
 D.; Waddell, Jennifer  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA  
 SOURCE: U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 398,859.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5874616	A	19990223	US 1995-577425	19951222
US 5514493	A	19960507	US 1995-398859	19950306
CA 2238619	A1	19970703	CA 1996-2238619	19961209
CA 2238619	C	20060808		
WO 9723448	A1	19970703	WO 1996-US19532	19961209
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9711301	A	19970717	AU 1997-11301	19961209
EP 904265	A1	19990331	EP 1996-942154	19961209
EP 904265	B1	20010418		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
ES 2155632	T3	20010516	ES 1996-942154	19961209
PRIORITY APPLN. INFO.:			US 1995-398859	A2 19950306
			US 1995-577425	A 19951222
			WO 1996-US19532	W 19961209
AB	A method includes reacting a fluoroalkylsulfonamide with a fluoroalkylsulfonyl halide or a fluorosulfonyl halide in the presence of a nonnucleophilic base. A reaction is $ZRfSO_2NH_2 + ZR'fSO_2X + 2B \rightarrow (ZRfSO_2)(ZR'fSO_2)N^- \cdot BH^+ + BHX$ , where each Z is F or a polymerizable organic functional group, Rf and R'f are fluoroalkylene groups optionally containing catenary O or N, X is a halogen, and B is a nonnucleophilic base. Thus, 35.00 g $CF_3SO_2NH_2$ , 98 mL Et3N, and 74.55 g $C4F_9SO_2F$ were heated to prepare $HN(SO_2CF_3)(SO_2C_4F_9)$ and treated with $Li_2CO_3$ to give Li trifluoromethanesulfonyl perfluorobutanesulfonyl imide.			
IT	1512-30-7	Difluoromethanesulfonyl chloride		
RL:	RCT (Reactant); RACT (Reactant or reagent) (preparation of bis(fluoroalkylenesulfonyl) imides and fluoroalkylsulfonyl fluorosulfonyl imides)			
RN	1512-30-7	CAPLUS		
CN	Methanesulfonyl chloride, difluoro-	(6CI, 8CI, 9CI)	(CA INDEX NAME)	



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997503575 CAPLUS  
 DOCUMENT NUMBER: 127:136181  
 TITLE: Preparation of bis(fluoroalkylenesulfonyl)imides and (fluoroalkylsulfonyl) (fluorosulfonyl)imides  
 INVENTOR(S): Howells, Richard D.; Lamanna, William M.; Fanta, Alan D.; Waddell, Jennifer E.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA  
 SOURCE: PCT Int. Appl., 35 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

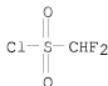
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9723448	A1	19970703	WO 1996-US19532	19961209
W: AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5874616	A	19990223	US 1995-577425	19951222
CA 2238619	A1	19970703	CA 1996-2238619	19961209
CA 2238619	C	20060808		
AU 9711301	A	19970717	AU 1997-11301	19961209
EP 904265	A1	19990331	EP 1996-942154	19961209
EP 904265	B1	20010418		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:				
		US 1995-577425	A 19951222	
		US 1995-398859	A2 19950306	
		WO 1996-US19532	W 19961209	

AB Fluoroalkylsulfonyl imides are prepared by reacting a fluoroalkylsulfonamide with a fluoroalkylsulfonyl halide or a fluorosulfonyl halide in the presence of a non-nucleophilic base, e.g., ZRFSO<sub>2</sub>NH<sub>2</sub> + ZR'fSO<sub>2</sub>X + 2B → (ZRFSO<sub>2</sub>)(ZR'fSO<sub>2</sub>)N--BH<sub>3</sub> + BHX (Z = F or a polymerizable organic functional group; Rf, R'f = fluoroalkylene groups optionally containing catenary oxygen or nitrogen; X = halogen; B = non-nucleophilic base). Unsym. imides and polymeric imides can be prepared H<sub>2</sub>NSO<sub>2</sub>(CF<sub>2</sub>)<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> 1.995, FSO<sub>2</sub>(CF<sub>2</sub>)<sub>3</sub>SO<sub>2</sub> 1.751, and triethylamine 3.363 g in 5 mL MeCN were stirred at 65° overnight, then at 75° for 8 h and worked up to obtain 2.2 g polymer with bimodal mol. weight distribution at Mn 19670 and 4240.

IT 1512-30-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of bis(fluoroalkylenesulfonyl)imides and (fluoroalkylsulfonyl)

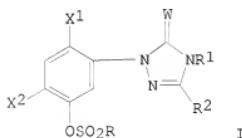
(fluorosulfonyl)imides)  
 RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1988:94570 CAPLUS  
 DOCUMENT NUMBER: 108:94570  
 ORIGINAL REFERENCE NO.: 108:15559a,15562a  
 TITLE: Preparation of [(sulfonyloxy)aryl]triazolinones and -thiones as herbicides  
 INVENTOR(S): Maravetz, Lester L.  
 PATENT ASSIGNEE(S): FMC Corp., USA  
 SOURCE: U.S., 20 pp. Cont.-in-part of U.S. Ser. No. 650,755, abandoned.  
 DOCUMENT TYPE: CODEN: USXXAM  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: English 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4705557	A	19871110	US 1986-829541	19860210
US 4919708	A	19900424	US 1989-372207	19890626
PRIORITY APPLN. INFO.:			US 1983-533013	A2 19830915
			US 1984-650755	A2 19840913
			US 1983-541596	B2 19831013
			US 1984-655960	B2 19840928
			US 1984-666933	B2 19841031
			US 1985-697619	B2 19850204
			US 1986-825520	B1 19860203
			US 1987-102303	B1 19870925

OTHER SOURCE(S): CASREACT 108:94570  
 GI



AB The title compds. (I; X1, X2 = halo, haloalkyl, alkyl; R = alkyl, haloalkyl, cyanoalkyl, etc.; R1 = R, alkenyl, alkynyl, alkoxyalkyl, alkylsulfonylalkyl, etc.; R2 = R, arylalkyl, alkoxyalkynyl, dialkylsulfoxide, etc.; W = O, S) were prepared as herbicides. 1-(2,4-Dichloro-5-hydroxyphenyl)-3-methyl-4-(2-propenyl)-A2-1,2,4-triazolin-5-one and Et3N were dissolved in THF and chloromethanesulfonyl

chloride was added dropwise to give 1-(2,4-dichloro-5-chloromethylsulfonyloxyphenyl)-3-methyl-4-(2-propenyl)- $\Delta$ 2-1,2,4-triazolin-5-one. The latter at 8.0 kg/ha preemergent gave a 100% kill of velvetleaf, morningglory, green foxtail, and johnson grass while having either a slight effect or no effect at all on cotton, soybeans, field corn, rice, and wheat.

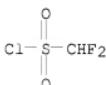
IT 1512-30-7, Difluoromethanesulfonyl chloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(sulfonylation by, of (hydroxyphenyl)triazolinone derivative, in preparation of herbicide)

RN 1512-30-7 CAPLUS

CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:522952 CAPLUS

DOCUMENT NUMBER: 103:122952

ORIGINAL REFERENCE NO.: 103:19657a, 19660a

TITLE: Reactions of halogenated methanesulfonyl chlorides with trimethylamine and an inverse sulfene-amine adduct.

AUTHOR(S): Rheude, Udo; Sundermeyer, Wolfgang

CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Heidelberg, Heidelberg, D-6900/1, Fed. Rep. Ger.

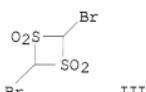
SOURCE: Chemische Berichte (1985), 118(6), 2208-19  
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 103:122952

GI



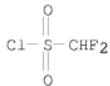
AB BrCH<sub>2</sub>Cl reacted with KF to give FCH<sub>2</sub>Cl which reacted with, e.g., Ph<sub>2</sub>CHSH to give Ph<sub>2</sub>CHSCH<sub>2</sub>SH. This was oxidized with Cl-H<sub>2</sub>O to give FCH<sub>2</sub>SO<sub>2</sub>Cl (I). I formed the adduct Me<sub>3</sub>N+CHFSO<sub>2</sub>- with Me<sub>3</sub>N. BrCH<sub>2</sub>SO<sub>2</sub>Cl gave mainly BrCH<sub>2</sub>SO<sub>2</sub>C-RSO<sub>2</sub>N+Me<sub>3</sub> (II, R = H), along with some II (R = Br). Several other reactions were studied; e.g., the dithietane III was prepared

IT 1512-30-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with trimethylamine)

RN 1512-30-7 CAPLUS

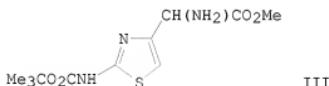
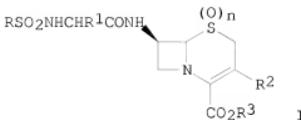
CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1984:209513 CAPLUS  
 DOCUMENT NUMBER: 100:209513  
 ORIGINAL REFERENCE NO.: 100:31807a,31810a  
 TITLE: Cephalosporin derivatives and their pharmaceutical compositions  
 INVENTOR(S): Kocsis, Karoly; Wiederkehr, Rene; Wehrli, Hansuli  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.  
 SOURCE: Eur. Pat. Appl., 287 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 92830	A2	19831102	EP 1983-104037	19830425
EP 92830	A3	19841227		
R: AT, BE, CH, FI 8301381	DE, FR, IT, LI, LU, NL, SE			
GB 2118942	A	19831028	FI 1983-1381	19830422
GB 2118942	A	19831109	GB 1983-11222	19830425
ES 521824	B	19850724		
DK 8301853	A1	19850501	ES 1983-521824	19830425
NO 8301470	A	19831028	DK 1983-1853	19830426
AU 8313951	A	19831103	NO 1983-1470	19830426
HU 28778	A2	19831228	AU 1983-13951	19830426
HU 188459	B	19860428	HU 1983-1436	19830426
DD 207720	A5	19840314	DD 1983-250223	19830426
ZA 8302918	A	19840829	ZA 1983-2918	19830426
JP 58194891	A	19831112	JP 1983-73135	19830427
ES 535195	A1	19850801	ES 1984-535195	19840816
PRIORITY APPLN. INFO.:			CH 1982-2568	A 19820427
			CH 1982-6504	A 19821109

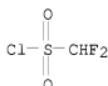
OTHER SOURCE(S): MARPAT 100:209513  
 GI



AB Cephalosporins I [R = C-bonded organic; R1 = heterocyclic; R2 = H, (un)substituted alkyl, alkoxy, halogen; R3 = H, protective group; n = 0-2] were prepared. Thus (2S)-I (R = Me, R1 = 2-amino-4-thiazolyl, R2 = H, R3 = Na, II) was prepared from thiazolylacetate III and benzhydryl 7-amino-3-cephem-4-carboxylate in 4 steps. II had a min. inhibitory concentration against Escherichia coli 205 of 0.02 µg/mL.

IT 1512-30-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with aminoethanesulfonylaminoacetate)

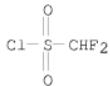
RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:203430 CAPLUS  
 DOCUMENT NUMBER: 90:203430  
 ORIGINAL REFERENCE NO.: 90:32349a,32352a  
 TITLE: Fluoroalkanesulfonyl chlorides  
 AUTHOR(S): Moore, George G. I.  
 CORPORATE SOURCE: Riker Lab., Inc., St. Paul, MN, USA  
 SOURCE: Journal of Organic Chemistry (1979), 44(10), 1708-11  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB FCHRSO2Cl (R = H, F) were prepared in 49% overall yields by treating FCHRC1 with PhCH2SH-NaOH in DMF, followed by oxidative chlorination in cold H2O. Despite identical conditions and yields, the reactions of PhCH2SNa with FCH2Cl and F2CHCl proceed through SN2 and carbene paths, resp., as indicated by alkylation in NaOD. The oxidative chlorination of F2CHSCH2Ph occurs at least 50% via the sulfoxide. In situ generation of PhCH2SNa gave a 39% overall yield of F2CHSO2Cl.

IT 1512-30-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

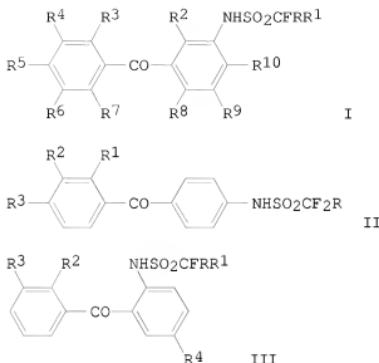
RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:139625 CAPLUS  
 DOCUMENT NUMBER: 86:139625  
 ORIGINAL REFERENCE NO.: 86:21913a,21916a  
 TITLE: (Fluoromethanesulfonamido)benzophenones  
 INVENTOR(S): Robertson, Jerry E.; Harrington, Joseph K.; Kvam,  
 Donald C.  
 PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA  
 SOURCE: U. S. Reissue, 9 pp. Reissue of U.S. 3,576,866.  
 CODEN: UUXXA2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 9  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 29032	E	19761109	US 1975-632572	19751117
GB 1251504	A	19711027	GB 1968-52348	19681105
CH 547265	A	19740329	CH 1968-17589	19681126
BR 6906155	D0	19730313	BR 1969-206155	19690205
US 3576866	A	19710427	US 1969-832824	19690612
US 3758688	A	19730911	US 1972-256377	19720524
PRIORITY APPLN. INFO.:				
			US 1966-588338	A2 19661021
			US 1968-719741	A2 19680408
			US 1969-832824	A5 19690612
			GB 1967-47927	A 19671020
			US 1970-45413	A2 19700611

OTHER SOURCE(S): MARPAT 86:139625  
 GI



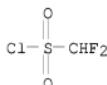
**AB** 3-Aminobenzophenones were treated with RCR1FSO<sub>2</sub>X (R = H, F; R<sub>1</sub> = H, F, CHF<sub>2</sub>, CHFCF<sub>3</sub>, CF<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>; X = Cl, F) and (CF<sub>3</sub>SO<sub>2</sub>)<sub>2</sub>O, and tertiary amines, to give sixty, resp., 3-(fluoromethanesulfonamido)benzophenones I (R<sub>2</sub> = H, Cl, Me, OMe; R<sub>3</sub> = H, Me, Cl, OMe, CF<sub>3</sub>; R<sub>4</sub> = H, Me, Cl, F, CF<sub>3</sub>; R<sub>5</sub> = H, Cl-4 alkyl, Cl, OMe, OBu, F, OCF<sub>3</sub>; R<sub>6</sub> = H, OMe, Me; R<sub>7</sub> = H, Me; R<sub>8</sub> = H, Cl, OMe, Br; R<sub>9</sub> = H, Cl, Me, OMe; R<sub>10</sub> = H, Cl, Me, OMe). Similarly prepared were five 4-sulfonamido isomers II (R = H, F; R<sub>1</sub> = H, Cl; R<sub>2</sub> = H, Cl; R<sub>3</sub> = H, Cl) and seven 2-isomers III (R = H, F; R<sub>1</sub> = F, H; R<sub>2</sub> = H, Cl; R<sub>3</sub> = H, Me; R<sub>4</sub> = H, Cl). I, II, and III are useful as antiinflammatory, analgesic, and antipyretic agents (no data).

**IT** 1512-30-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation of, by aminobenzophenones)

**RN** 1512-30-7 CAPLUS

**CN** Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

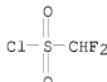


L6 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1976:462813 CAPLUS  
 DOCUMENT NUMBER: 85:62813  
 ORIGINAL REFERENCE NO.: 85:10105a,10108a  
 TITLE: Acylamides of  $\beta$ -cyanoethenesulfonyl-substituted aminoarenes  
 INVENTOR(S): Richter, Sven U. K. A.; Tsolis, Alexandros K.; Tsolis, Elefteria A.  
 PATENT ASSIGNEE(S): Sanitized, Inc., USA  
 SOURCE: U.S., 24 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

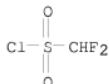
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3943154	A	19760309	US 1973-337637	19730302
CA 1051018	A1	19790320	CA 1974-193883	19740301
PRIORITY APPLN. INFO.:			US 1973-337637	A 19730302
AB R[R1S(O)nNH]C6H3SO2CH:CHR2 (I; R = H, Me, Cl, etc; R1 = Ph, Me, CF3, 2,4,6-Me3C6H2, etc; R2 = CN, CONH2, CO2Et; n = 0, 1, 2), 4-R2P(O)NHC6H4SO2CH:CHR1 (II; R = aziridinyl, EtO, HO, MeN, etc.) and related compds. were prepared by the reaction of an acid halide with an (aminophenylsulfonyl)vinyl compound. Thus, 4-H2NC6H4SO2CH:CHCN was added to cooled MeSO2Cl in HCCl3, followed by the addition of pyridine, and the mixture was kept at room temperature for 48 hr to give 4-(MeSO2NH)C6H4SO2CH:CHCN. I				
and II are useful as bactericides and fungicides; test data were given.				
IT 1512-30-7				
RL: RCT (Reactant); RACT (Reactant or reagent)				
(reaction of, with (aminophenylsulfonyl)acrylonitrile)				
RN 1512-30-7 CAPLUS				
CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)				



L6 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1975:16579 CAPLUS  
 DOCUMENT NUMBER: 82:16579  
 ORIGINAL REFERENCE NO.: 82:2645a,2648a  
 TITLE: Haloalkylsulfonamido-substituted tolan and stilbene compounds  
 INVENTOR(S): Moore, George G. I.; Trancik, Ronald J.  
 PATENT ASSIGNEE(S): Riker Laboratories, Inc.  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3840527	A	19741008	US 1971-172261	19710816
PRIORITY APPLN. INFO.:			US 1971-172261	19710816
AB 2,5-R2C6H3ZC6-H4NR1SO2CF3 (I; R = MeO; R1 = H, EtO2C, F2CHSO2, CN; Z = CH:CH, CMe:CH, C.tpbond.C) were prepared by the reaction of 2,5-R2C6H3ZC6H4NH2 with (CF3SO2)2O, followed by reaction with R1Cl. Thus, 3.34 g trans-2-H2NC6H4CH:CHPh reacted with 4.9 g (CF3SO2)2O in 25 ml CH2Cl2 and 2.7 ml Et3N at 0° to give trans-2-(F3CSO2NH)C6H4CH:CHPh, which reacted with ClCO2Et to give trans-2-(PhCH:CH)C6H4N(CO2Et)SO2CF3. I were useful as antiinflammatory agents and herbicides (no data).				
IT 1512-30-7				
RL: RCT (Reactant); RACT (Reactant or reagent)				
(reaction of, with [(trifluoromethyl)sulfonyl]amino)stilbene)				
RN 1512-30-7 CAPLUS				

CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:419402 CAPLUS  
DOCUMENT NUMBER: 77:19402  
ORIGINAL REFERENCE NO.: 77:3245a,3248a  
TITLE: Fluoroalkylsulfonamidoaryl compounds as plant growth regulators  
INVENTOR(S): Moore, George G. I.; Harrington, Joseph K.  
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.  
SOURCE: Ger. Offen., 57 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2118190	A	19720309	DE 1971-2118190	19710408
DE 2118190	C2	19821125		
NL 7104420	A	19711015	NL 1971-4420	19710402
NL 174644	B	19840216		
NL 174644	C	19840716		
CH 557804	A	19750115	CH 1971-5144	19710408
CA 1010890	A1	19770524	CA 1971-110036	19710408
BE 765558	A1	19711011	BE 1971-102037	19710409
FR 2097745	A5	19720303	FR 1971-12702	19710409
JP 54011297	B	19790514	JP 1971-23004	19710412
GB 1306564	A	19730214	GB 1971-26681	19710419
JP 56040685	B	19810922	JP 1977-85723	19770719
JP 55015474	B	19800423	JP 1978-45455	19780419
PRIORITY APPLN. INFO.:			US 1970-28148	19700413
			US 1971-118476	19710224

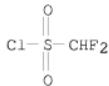
AB Trifluoromethanesulfonylanilides (I) substituted in the 2-, 3-, or 4-position by arylthio, aryloxy, arylsulfonyl, or arylsulfinyl groups, and in other positions by Cl, Me, CF<sub>3</sub>, MeO, NO<sub>2</sub>, or NH<sub>2</sub> are active against cyprus grass (*Cyperus esculentus* and *C. rotundus*). Phenoxy-substituted I have antiinflammatory properties. 3-PhSC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> with CF<sub>3</sub>SO<sub>2</sub>Cl in the presence of Et<sub>3</sub>N. Various methods were used to prepare .apprx.250 other I.

IT 1512-30-7

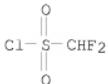
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with aniline derivs.)

RN 1512-30-7 CAPLUS

CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L6 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1961:2452 CAPLUS  
 DOCUMENT NUMBER: 55:2452  
 ORIGINAL REFERENCE NO.: 55:445g-i,446a-c  
 TITLE: Arylamides of halogenated methane- and ethanesulfonic acids  
 AUTHOR(S): Farrar, W. V.  
 CORPORATE SOURCE: Imp. Chem. Ind. Ltd., Manchester, UK  
 SOURCE: Journal of the Chemical Society (1960) 3058-62  
 CODEN: JCSOA9; ISSN: 0368-1769  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB Reaction of RSO<sub>2</sub>Cl with ArNH<sub>2</sub>, either with or without C<sub>5</sub>H<sub>5</sub>N present, gave ArNHSO<sub>2</sub>R. Pure ClCH<sub>2</sub>SO<sub>2</sub>Cl (I) (198 g.) was best prepared by heating 258 g. ClCH<sub>2</sub>SO<sub>3</sub>Na with 340 g. PCl<sub>5</sub> 2 hrs. at 100°; I was used for the preparation of the following ArNHSO<sub>2</sub>CH<sub>2</sub>Cl (Ar, % yield, and m.p. given): p-ClC<sub>6</sub>H<sub>4</sub>, 79, 106°, with p-ClC<sub>6</sub>H<sub>5</sub>NS(O<sub>2</sub>CH<sub>2</sub>Cl)<sub>2</sub>, 7, 124°, as the sole by-product; 2,4-C<sub>13</sub>C<sub>6</sub>H<sub>3</sub>-, -, 108°; 2,4,5-C<sub>13</sub>C<sub>6</sub>H<sub>2</sub>-,-, 114°. Their rates of alkaline hydrolysis varied. The Na salt from 25 g. 2,4,5-C<sub>13</sub>C<sub>6</sub>H<sub>2</sub>SO<sub>2</sub>NH<sub>2</sub> and 15 g. I was refluxed 16 hrs. in 200 ml. C<sub>6</sub>H<sub>6</sub> to form 15 g. Na salt (II), m. 280-2°, of 2,3,5-C<sub>13</sub>C<sub>6</sub>H<sub>2</sub>SO<sub>2</sub>NHSO<sub>2</sub>CH<sub>2</sub>Cl (III). With HCl, II gave III, m. 155-6°, stable to hot aqueous alkali. PhNHSO<sub>2</sub>CH<sub>2</sub>Br, m. 77°, and PhNHSO<sub>2</sub>CH<sub>2</sub>I, m. 70°, prepared from BrCH<sub>2</sub>SO<sub>2</sub>Cl and ICH<sub>2</sub>SO<sub>2</sub>Cl, resp., were decomposed by aqueous NaOH. CHCl<sub>2</sub>SO<sub>2</sub>Cl (IV) was prepared by heating PCl<sub>5</sub> with CHCl<sub>2</sub>SO<sub>3</sub>Na, which (25 g.) was obtained by heating 120 g. CHCl<sub>3</sub>, 250 g. Na<sub>2</sub>SO<sub>3</sub>, 7H<sub>2</sub>O, and 800 g. H<sub>2</sub>O 5 hrs. at 125° and 100 lb./sq. in. IV gave 65% PhNHSO<sub>2</sub>CHCl<sub>2</sub>, m. 78°, and 65% p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CHCl<sub>2</sub> (V), m. 103°, with 2% p-ClC<sub>6</sub>H<sub>4</sub>NaCl. V was rapidly decomposed at 100° by N Na<sub>2</sub>CO<sub>3</sub> to mainly p-ClC<sub>6</sub>H<sub>4</sub>NC. IV gave 8% 2,4,5-C<sub>13</sub>C<sub>6</sub>H<sub>2</sub>NHSO<sub>2</sub>CHCl<sub>2</sub>, m. 168°, and much tar. Oxidation of 3 g. p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CHCl<sub>2</sub>, m. 49°, with H<sub>2</sub>O<sub>2</sub> gave 1.95 g. unstable sulfonylamine, m. 157-8° (decomposition), while oxidation by KMnO<sub>4</sub> gave 1.2 g. sulfonanilide, m. 147°, which decomposed in 10% aqueous Na<sub>2</sub>CO<sub>3</sub> at 100° to p-ClC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, (p-ClC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO, and (p-ClC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO:NC<sub>6</sub>H<sub>4</sub>Cl-p-. CHF<sub>2</sub>SO<sub>3</sub>Na (VI) (34.5 g.) was prepared from 86 g. CHCl<sub>2</sub>, 250 g. Na<sub>2</sub>SO<sub>3</sub>, 7H<sub>2</sub>O, and 500 g. H<sub>2</sub>O (20 hrs. at 120° and 230 lb./sq. in.); PCl<sub>5</sub> converted it to CHF<sub>2</sub>SO<sub>2</sub>Cl, not isolated but used to prepare PhNHSO<sub>2</sub>CHF<sub>2</sub>, m. 59°, p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CHF<sub>2</sub>, m. 92°, and 2,4-C<sub>12</sub>C<sub>6</sub>H<sub>3</sub>NHSO<sub>2</sub>CHF<sub>2</sub>, m. 94°. VI and CHCl<sub>2</sub>F gave a mixture of CH<sub>2</sub>FSO<sub>3</sub>Na and CHCl<sub>2</sub>SO<sub>3</sub>Na, converted into a mixture of PhNHSO<sub>2</sub>CH<sub>2</sub>F, m. 86.5°, and PhNHSO<sub>2</sub>CHClF, m. 63°, separated by crystallization. Chlorination of mixt of the p-chloroanilides, obtained similarly, gave p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CHClF, m. 78°, and 2,4-C<sub>12</sub>C<sub>6</sub>H<sub>3</sub>NHSO<sub>2</sub>CH<sub>2</sub>F. All the F-containing arylamides were stable to alkali. MeCHClSO<sub>2</sub>Cl gave PhNHSO<sub>2</sub>CHClMe, m. 70°. ClCH<sub>2</sub>CH<sub>2</sub>SO<sub>2</sub>Cl gave p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CH:CH<sub>2</sub>, m. 50°, p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Cl-p., m. 78°, and p-ClC<sub>6</sub>H<sub>4</sub>NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Cl-p., m. 86°.  
 IT 1512-30-7P, Methanesulfonyl chloride, difluoro-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 1512-30-7 CAPLUS  
 CN Methanesulfonyl chloride, difluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



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